



*Annual* **WATER**  
**QUALITY**  
**REPORT**

*Reporting Year 2011*

*Presented By*



PWS ID#: 5610019

## Meeting the Challenge

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2011. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies.

## Community Participation

The Camarillo City Council convenes regularly at 5 p.m. on the second and fourth Wednesday each month at 601 Carmen Drive. We welcome public interest and participation in decisions affecting drinking water and encourage attendance at these meetings. Visit our Web site at [www.ci.camarillo.ca.us](http://www.ci.camarillo.ca.us) for city council agenda information.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

## Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

**Microbial Contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

**Inorganic Contaminants**, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

**Radioactive Contaminants**, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Where Does My Water Come From?

City of Camarillo Water Division customers receive local groundwater pumped from the Fox Canyon Aquifer via four city wells, which is blended with imported water from Calleguas Municipal Water District. These wells have the ability to pump up to 8.6 million gallons per day. The imported water provided by Calleguas originates in northern California and is conveyed over 500 miles through the State Water Project's network of reservoirs, aqueducts, and pump stations. After treatment at the Metropolitan Water District Jensen Filtration Plant in Granada Hills, the water is carried by pipeline to Ventura County, where it is distributed by Calleguas to more than a half million Ventura County customers. Additional supplies of the imported water are stored in Lake Bard, Calleguas' reservoir in Thousand Oaks.

## Source Water Assessment

In May 2001, a Source Water Vulnerability Assessment of the City of Camarillo's three groundwater wells was conducted. A fourth well located at the Camarillo airport was added to our water system after this assessment was conducted. The sources have been determined to be vulnerable to contaminants associated with agricultural drainage and irrigation wells, with discharges permitted by the National Pollutant Discharge Elimination System, with storm drains and sewer collection systems, and with gas stations and dry cleaners. Although no contaminants from these activities were detected in the water produced by these wells, they are still considered vulnerable to these nearby activities. A copy of the complete assessment is available by contacting the City of Camarillo Water Division at (805) 388-5373.

## Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Testing for Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal if the level of radon in your air is 4 pCi/L of air or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call California's radon program (1-800-745-7236), the U.S. EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Debbie Schultz, Administrative Specialist, at (805) 388-5373.

# Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES									
				City of Camarillo		Calleguas Municipal Water District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2011	1,000	600	NA	NA	78.5	ND-99	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic <sup>1</sup> (ppb)	2011	10	0.004	ND	ND-3	2.22	ND-3	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium <sup>1</sup> (ppm)	2011	1	2	.049	.037-.06	NA	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Bromate (ppb)	2011	10	0.1	NA	NA	5.61	ND-8.8	No	By-product of drinking water disinfection
Chlorine (ppm)	2011	[4.0 (as Cl2)]	[4 (as Cl2)]	1.3	0.3-2.1	1.9	1.8-2.0	No	Drinking water disinfectant added for treatment
Combined Radium <sup>2</sup> (pCi/L)	2011	5	(0)	ND	ND-1.79	NA	NA	No	Erosion of natural deposits
Control of DBP precursors [TOC] (ppm)	2005	TT	NA	0.7	ND-1.2	1.91 <sup>3</sup>	0.6-2.6 <sup>3</sup>	No	Various natural and man-made sources
Fluoride <sup>1,4</sup> (ppm)	2011	2.0	1	0.3	0.1-0.5	0.8	0.7-0.9	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity <sup>5,6</sup> (pCi/L)	2011	15	(0)	7.1	ND-20.4	0.05	ND-7	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2011	60	NA	7.9	2.7-11	6	4-9	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2011	45	45	NA	NA	0.4	ND-0.5	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2011	50	30	NA	NA	0.05	ND-5	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	14.3	6.8-21	24	15-44	No	By-product of drinking water disinfection
Turbidity <sup>7</sup> (NTU)	2011	TT	NA	NA	NA	0.08	0.05-0.08	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT	NA	NA	NA	100	NA	No	Soil runoff
Uranium <sup>5,6</sup> (pCi/L)	2011	20	0.43	3.3	ND-7.5	1.11	ND-16	No	Erosion of natural deposits
Tap water samples were collected for lead and copper analyses from sample sites throughout the community									
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE		
Copper (ppm)	2010	1.3	0.3	0.54	0/49	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		
Lead (ppb)	2010	15	0.2	2.7	0/49	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits		



SECONDARY SUBSTANCES									
				City of Camarillo		Calleguas Municipal Water District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2011	200	NS	NA	NA	78.5	ND–99	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride <sup>1</sup> (ppm)	2011	500	NS	126	73–170	65.04	59–90	No	Runoff/leaching from natural deposits; seawater influence
Color <sup>1</sup> (Units)	2011	15	NS	5.6	2.5–10	1.27	ND–15	No	Naturally occurring organic materials
Corrosivity <sup>1</sup> (Units)	2011	Non-corrosive	NS	12.9	12.7–13	12	11.5–12.1	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Iron <sup>9</sup> (ppb)	2011	300	NS	143	ND–260	NA	NA	No	Leaching from natural deposits; industrial wastes
Manganese <sup>8</sup> (ppb)	2011	50	NS	72	36–110	NA	NA	No	Leaching from natural deposits
Odor–Threshold (Units)	2011	3	NS	NA	NA	1.9	ND–2	No	Naturally occurring organic materials
Specific Conductance <sup>1,8</sup> (µS/cm)	2011	1,600	NS	1,618	1,100–2,370	506.54	420–754	No	Substances that form ions when in water; seawater influence
Sulfate <sup>9</sup> (ppm)	2011	500	NS	384	290–480	56.9	54–147	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids <sup>9</sup> (ppm)	2011	1,000	NS	836	620–1,100	283.92	280–460	No	Runoff/leaching from natural deposits
Turbidity <sup>1</sup> (NTU)	2011	5	NS	1.8	0.6–2.6	0.03	ND–6	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES					
		City of Camarillo		Calleguas Municipal Water District	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity <sup>1</sup> (ppm)	2011	235	220–260	85.39	76–110
Bicarbonate <sup>1</sup> (ppm)	2011	250	220–320	NA	NA
Boron (ppb)	2009	480	300–700	190.5 <sup>3</sup>	190–200 <sup>3</sup>
Calcium <sup>1</sup> (ppm)	2011	161	86–265	27.21	26–62
Chlorate (ppb)	2011	NA	NA	24.7	ND–26
Magnesium <sup>1</sup> (ppm)	2011	44	25–73	12.1	12–18
N-Nitrosodimethylamine (NDMA) (ppt)	2011	NA	NA	5	ND–9
Potassium <sup>1</sup> (ppm)	2011	5.4	4.2–7	3	3–4
pH <sup>1</sup> (Units)	2011	7.8	7.5–8	8.2	7.4–8.4
Radon (pCi/L)	2011	NA	NA	7.61	ND–1,087
Sodium <sup>1</sup> (ppm)	2011	153	100–221	54.71	52–71
Total Hardness <sup>1</sup> (ppm)	2011	531	100–962	111.29	100–229
Vanadium (ppb)	2011	NA	NA	2.88	ND–3

## Definitions

### AL (Regulatory Action Level):

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

### µS/cm (microsiemens per centimeter):

A unit expressing the amount of electrical conductivity of a solution.

### MCL (Maximum Contaminant Level):

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

### MCLG (Maximum Contaminant Level Goal):

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

### MRDL (Maximum Residual Disinfectant Level):

The highest level of a disinfectant allowed in

drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

### MRDLG (Maximum Residual Disinfectant Level Goal):

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NS:** No standard.

### NTU (Nephelometric Turbidity Units):

Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**PDWS (Primary Drinking Water Standard):** MCLs and MRDLs for

contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.

### PHG (Public Health Goal):

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**ppt (parts per trillion):** One part substance per trillion parts water (or nanograms per liter).

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

<sup>1</sup>Amount Detected and Range for Camarillo are results of samples tested in 2009, 2010, and 2011.

<sup>2</sup>Amount Detected and Range for Camarillo are results of samples tested in 2007, 2008, 2010, and 2011.

<sup>3</sup>Sampled in 2011.

<sup>4</sup>The Metropolitan Water District treats their water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained within a range of 0.7-1.3 ppm, as required by Dept. of Public Health regulations.

<sup>5</sup>Amount Detected and Range for Camarillo are results of samples tested in 2007, 2009, and 2011.

<sup>6</sup>Analyzed by Calleguas Municipal Water District every three years, for four consecutive quarters (MWD sampled 2011, Lake Bard & Las Posas Wellfield sampled 2009, 2010, and 2011).

<sup>7</sup>The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95 percent of the measurements taken each month and shall not exceed 1.0 NTU at any time. Wellfield water is not subject to these requirements.

<sup>8</sup>Manganese & Specific Conductance: Detections are at a level exceeding the established State Secondary MCL (SMCL) which is set to protect against unpleasant aesthetic effects such as taste, odor and staining of fixtures and clothing during laundering. The City of Camarillo is embarking on the construction of a regional water treatment plant to improve the quality of the water pumped from the Fox Canyon Aquifer.

<sup>9</sup>Amount detected and range are from groundwater blended with Calleguas water, bringing it into compliance. Raw groundwater samples alone were detected at a level exceeding the established State Secondary MCL (SMCL) which was set to protect against unpleasant aesthetic effects such as taste, odor and staining of fixtures and clothing during laundering.